

REMARKS

Applicant thanks the Examiner for indicating that claims 2–9 would be allowable if rewritten in independent form. Claim 1 has been amended to incorporate the limitations of claim 2. Claim 2 is cancelled.

Claims 10–21 are new to this application. New claims 10, 13, and 20 are independent claims. Claims 10–12 correspond to amended claims 1, 3, and 4 but do not include “means-plus-function” language. Claims 13–19 correspond to claims 1, 2, 3, 4, 6, 7, and 9. Independent claim 13 does not include the limitations of claim 2. Claims 20 and 21 correspond to claims 13 and 15, respectively, but do not include “means-plus-function” language.

Claim Objections

Claims 1, 4–6, 8, and 9 have been objected to by the Examiner. Claims 1, 4–6, 8, and 9 have been amended. Numerous other amendments have been made to delete reference numerals and to put the claims in proper U.S. format.

Claim Rejections Under 35 U.S.C. § 103(a)

Claim 1 has been rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 4,771,208 to Jongen et al. in view of U.S. Patent No. 2,922,061 to Lee.

Jongen et al. does not teach a cyclotron having an injector located on the outside of the cyclotron, essentially in accordance with the main axis. On the contrary, Jongen et al. describes a cyclotron where the particle source is located in the central passage 25

(see Jongen et al. at column 5, lines 41–44). An inflector is therefore not required in the Jongen et al. apparatus.

Lee is directed to a particle accelerator comprising a first and second accelerator, a magnetic deflector in the first accelerator and a magnetic inflector in the second accelerator. Both deflector and inflector are arranged to change the beam trajectory while the beam remains in the median plane. In other words, the teaching of Lee does not comprise a magnetic inflector for inflecting a beam from a direction perpendicular to the median plane until it is positioned in the median plane. Therefore, the mere installation of the Lee inflector in the Jongen apparatus would not be equivalent to the claimed invention.

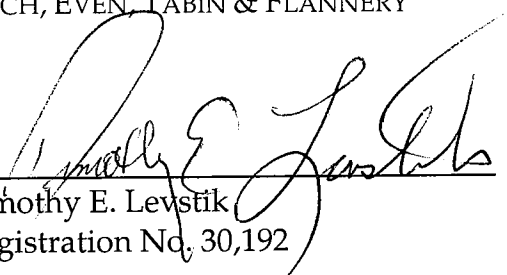
In view of the foregoing, Applicant respectfully requests reconsideration and allowance of the pending claims.

The Commissioner is hereby authorized to charge any additional fees which may be required with respect to this communication, or credit any overpayment, to Deposit Account No. 06-1135.

Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY

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